Thor™ CE User Guide

Microsoft® Windows® Embedded CE 6 Operating System

LXE | TRUX | Vehicle-Mount Computer

E-EQ-THORCEOGWW-A

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Table of Contents

Set Up A New Thor 1

Hardware Setup 1

Software Setup 1

Components 2

Front View 2

Back View Quick Mount Smart Dock 3

Access Panels 3

Thor Quick Mount Smart Dock 3

Preparing the Dock 4

Place the Thor in the Dock 5

Removing the Thor from the Dock 5

Tapping the Touchscreen with a Stylus 6

Backlights and Indicators 7

Display Backlight 7

Power Management 7

Backlight Brightness 7

Screen Blanking 7

Keypad Backlight 7

LED Functions 8

System LEDs 8

SYS (System Status) LED 9

UPS Status LED 9

External Power Present 9

External Power Not Present 9

SSD (Solid State Drive) LED 10

Connection LEDs 10

WWAN LED 10

WiFi LED 10

Bluetooth LED 10

Keyboard LEDs 11

2nd LED 11

Shift LEDs 11

Ctrl LED 11

Alt LED 11

Set Power Scheme Timers 12

Battery Power Scheme 12

AC Power Scheme 12

Connecting Cables to the Thor ... 13
Connect Cable- USB Client ... 13
USB-C Cable Assembly ... 13
Connect Cable- USB Host ... 13
USB-H Cable Assembly ... 13
Connect Cable - Serial ... 14
Connecting a Tethered Scanner ... 14
Connecting the Headset Cable ... 15
Adjust Headset / Microphone and Secure Cable ... 16
How To: Power Up the Thor ... 17
Connecting an AC/DC Power Supply ... 17
Connecting Vehicle Power ... 19
Vehicle 12-48 VDC Power Connection ... 19
VX6 / VX7 Adapter Cable ... 21
Vehicle 72-144 VDC Power Connection ... 21
Adjust Speaker Volume ... 23
Using the Keypad ... 23
Using the Control Panel ... 24
Set Date and Time Zone ... 25
Grab Time Utility ... 25
Autolaunch Time-Sync ... 25
Using the Input Panel / Virtual Keyboard ... 26
Touchscreen ... 27
Calibrating the Touchscreen ... 27
Apply the Touchscreen Protective Film ... 27
Setup Terminal Emulation Parameters ... 27
Using the AppLock Switchpad ... 28
Using the Keypad ... 28
Using the Touchscreen ... 28
Reboot ... 29
Warmboot ... 29
Restart ... 29
Troubleshooting ... 29
Regulatory Notices and Safety Information ... 30
Class A Digital Device ... 30
RF Safety Notice ... 31
Lithium Battery Safety Statement ... 32
Vehicle Power Supply Connection Safety Statement ... 33
Revision History ... 33

Index 34

Set Up A New Thor

Note: LXE recommends that installation or removal of accessories be performed on a clean, well-lit surface. When necessary, protect the work surface, the Thor, and components from electrostatic discharge.

While the Thor is in a Hazardous Location DO NOT:

- Connect an external power source to the Thor.
- Connect a USB device or audio jack to the Thor.

Caution	
	Before shipping the Thor, the internal UPS battery must be disconnected. Please refer to the *Thor CE Reference Guide* for details.

Hardware Setup

1. Connect accessories to the Thor Quick Mount Vehicle Dock.
2. Connect cables.
3. Connect power cable to the dock.
4. Secure all cables to the dock with the Strain Relief Cable Clamps.
5. Secure the Thor in the dock.
6. Press power switch on dock.
7. Press the Power key.

Software Setup

Prerequisite: Hardware setup is complete.

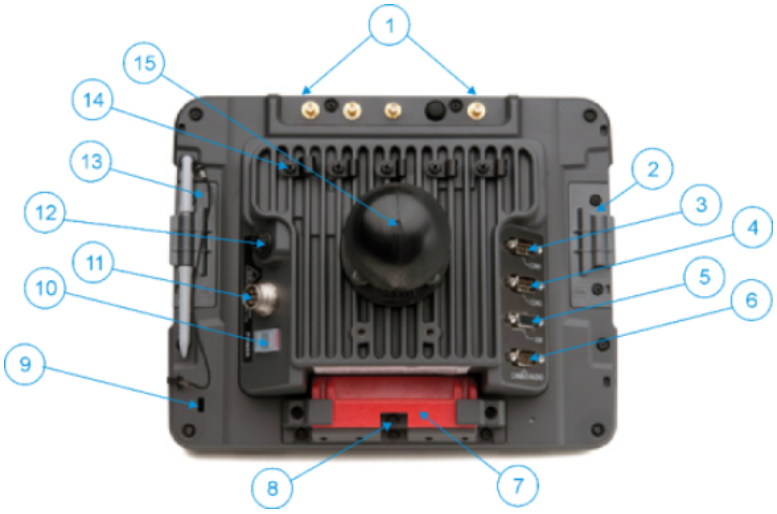
1. Calibrate Touch screen
2. Set Date and Time Zone
3. Set Power Schemes Timers
4. Adjust Speaker Volume
5. Pair Bluetooth devices
6. Setup Wireless client parameters
7. Setup terminal emulation parameters
8. Save changed settings to the registry
9. Setup the LXE AppLock parameters
10. Set the LXE DC Wedge parameters

Components

Front View

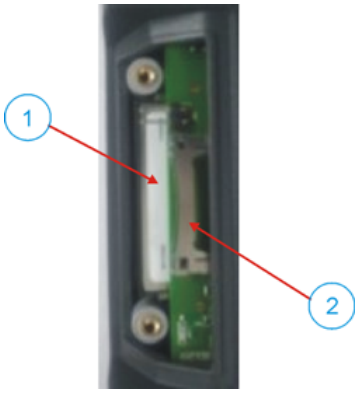
1. Power Button
2. Speakers
3. Ambient Light Sensor
4. Microphone

Back View Quick Mount Smart Dock



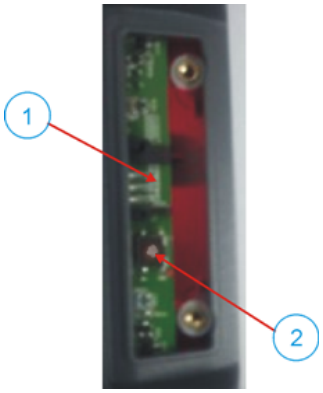
1. Antenna Connectors (on Thor)
2. SIM card Access Panel (on Thor)
3. COM1 Connector (on Dock)
4. COM2 Connector (on Dock)
5. USB Connector (on Dock)
6. CAN/Audio Connector (on Dock)
7. Quick Release Handle (On Thor)
8. Provision for Padlock (on Thor and Dock)
9. Provision for Laptop Security Cable (on Thor)
10. Power Switch (on Dock)
11. Power Connector (on Dock)
12. Fuse (on Dock)
13. SD Card Access Panel (On Thor)
14. Strain Relief Clamps (on Dock)
15. RAM Ball (on Dock)

Access Panels



Access Panel Door is labeled with **SSD** and **SD**.

1. Compact Flash Hard Drive
2. SD (Secure Digital) Memory Card Slot



Access Panel Door is labeled with **SIM**.

1. SIM card slot for WWAN radio
2. UPS battery disconnect

Thor Quick Mount Smart Dock

The Thor assembly consists of two parts, the Thor computer and the Quick Mount Smart Dock.

The Thor contains an internal UPS battery that, once fully charged, powers the Thor for a minimum of 30 minutes when the unit is not mounted in the dock.

The Dock provides:

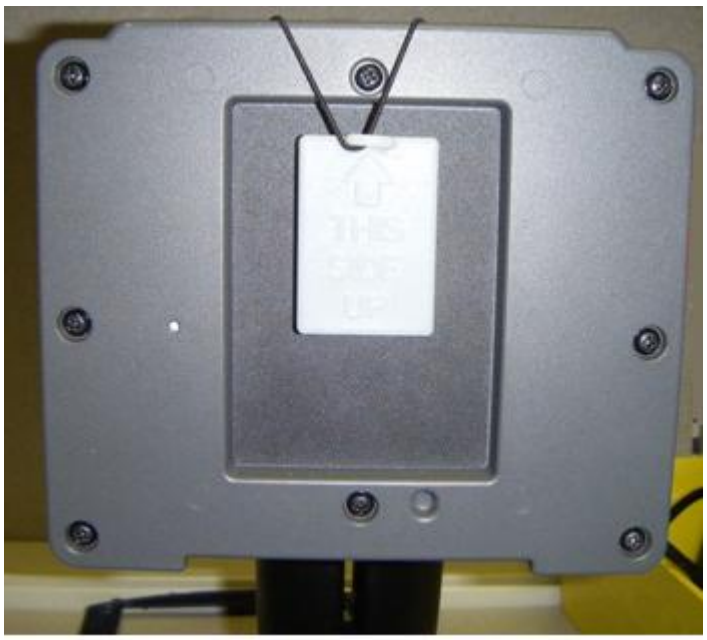
- A mount for the Thor computer. The Dock attaches to a vehicle via a mount.
- Conditioned power for the Thor. The Dock accepts 12-48 VDC nominal power input directly or 72-144VDC power input with a DC/DC converter.
- COM1 and COM2 serial connections for a tethered scanner, printer, PC connection, etc.
- USB host and client connections via an adapter cable.
- CANbus connection via an adapter cable.
- Headset connection via an adapter cable. When a headset is not attached, the microphone and speakers on the Thor are active.
- Strain relief cable mounts.
- Mobility of the Thor, since the Dock remains attached to the vehicle the Thor computer can easily be moved from one vehicle equipped with a Dock to another.

External antenna connectors may be present on the back of the Thor. The connectors may include:

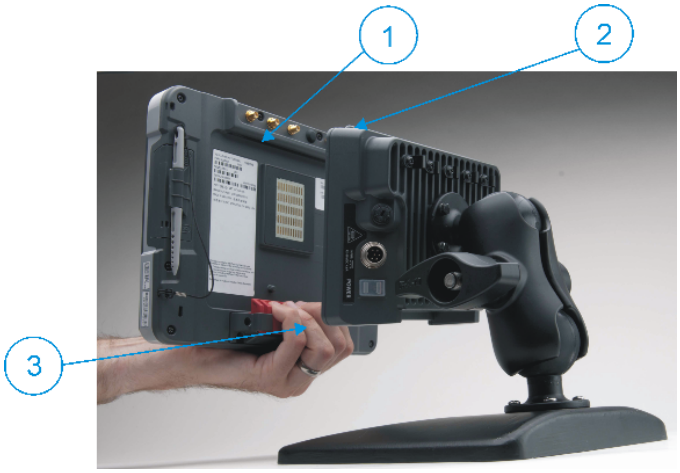
- 802.11 antenna connectors, used when the Thor is not equipped with internal antennas.
- External GPS antenna connector, when the Thor is equipped with GPS.
- External WWAN antenna connectors, when the Thor is equipped with WWAN.

Preparing the Dock

1. Attach RAM mount to vehicle (see *Thor CE Vehicle Mounting Reference Guide*).
2. Attach accessories to dock.
3. Attach power cable, 12-48VDC or 72-144VDC.
4. If the tethered I/O port cover is in place, lift the cover to expose the I/O port on the dock. The tether allows the cover to be swung over the back of the dock.



Place the Thor in the Dock



1. Notch on Thor
2. Lip on dock
3. Release lever

1. Locate the lip on the top rear of the Thor.
2. Slide this lip over the top of the Dock. Slide the Thor from side to side on the Dock to make sure it fully engages on the lip of the Dock. If the Thor cannot be slid side to side, the lip is engaged.
3. Pull the quick release lever on the Thor down and push the Thor against the Dock.
4. Release the quick release lever.
5. If necessary, use the supplied RAM wrench to adjust the viewing angle of the Thor.

Removing the Thor from the Dock

The Thor may be removed from the Quick Mount for limited periods of use or the transfer from vehicle to vehicle.

The UPS battery inside the Thor powers a fully functional Thor for a minimum of 30 minutes.

To remove the Thor from the Dock:

1. Pull the release latch downward on the back of the Thor.
2. Pull the bottom of the Thor away from the Dock.
3. Lift the Thor away from the Dock.

Tapping the Touchscreen with a Stylus

Note: Always use the point of the stylus for tapping or making strokes on the touchscreen.

Never use an actual pen, pencil, or sharp/abrasive object to write on the touchscreen.

Hold the stylus as if it were a pen or pencil. Touch an element on the screen with the tip of the stylus then remove the stylus from the screen.

Firmly press the stylus into the stylus holder when the stylus is not in use.

Using a stylus is similar to moving the mouse pointer then left-clicking icons on a desktop computer screen.

Using the stylus to tap icons on the touchscreen is the basic action that can:

- Open applications
- Choose menu commands
- Select options in dialog boxes or drop-down boxes
- Drag the slider in a scroll bar
- Select text by dragging the stylus across the text
- Place the cursor in a text box prior to typing in data
- Place the cursor in a text box prior to retrieving data using a scanner/imager or an input/output device connected to a serial port.

A stylus replacement kit is available.

Backlights and Indicators

Display Backlight

There are several configuration options for the Thor display backlight:

Power Management

The display backlight is controlled by power management. When the user activity timer expires, the display backlight is turned off. Different timeouts can be set for when the Thor is operating on battery (UPS) or external power.

Please refer to the *Thor CE Reference Guide* for details.

Backlight Brightness

The intensity of the display backlight can be manually configured:

- Use the **2nd** + **F7** keypress to increase backlight brightness and the **2nd** + **F8** keypress to decrease backlight brightness.
- Use the display settings in the Control Panel to adjust backlight brightness. See the *Thor CE Reference Guide* for details.

If the Thor is equipped with an outdoor display, the display can be configured to automatically adjust brightness depending on the level of ambient light.

Please refer to the *Thor CE Reference Guide* for details.

Screen Blanking

The Thor can be configured to blank (blackout) the display while the vehicle is in motion.

Please refer to the *Thor CE Reference Guide* for details.

Keypad Backlight

By default, the keypad backlight follows the display backlight. The keypad backlight can be disabled.

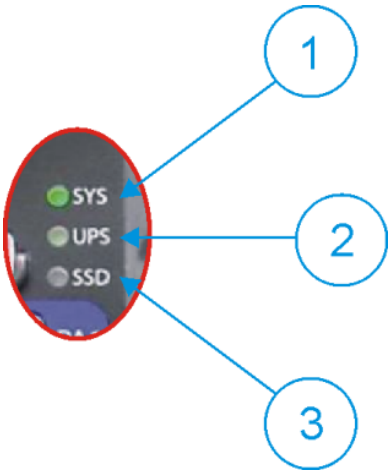
Please refer to the *Thor CE Reference Guide* for details.

LED Functions

Thor LEDs

1. System LEDs
2. Connection LEDs
3. 2nd LED
4. Shift/CapsLock LED (64 key keyboards only
5. Ctrl LED (64 key key-boards only)
6. Alt LED (64 key key-boards only)
7. Shift/CapsLock LED

System LEDs



1. SYS (System Status) LED
2. UPS (Uninterruptible Power Supply) LED
3. SSD (Solid State Drive) LED

SYS (System Status) LED

LED Behavior	System State
Solid **Green**	• On, • On but Backlight Off, *or* • On but Display Off
Green blinking very slowly External power present (Approximately one half second on, 4.5 seconds off)	• Suspend
Off External power not present	• Off, *or* • Suspend
Green blinking slowly External power present (Approximately one half second on, 1.5 seconds off)	CPU temperature less than -20ºC, Heater warming CPU for 30 seconds
Green blinking slowly External power not present (Approximately one half second on, 1.5 seconds off)	CPU temperature less than -20ºC, Need to move unit to warmer environment

UPS Status LED

The behavior of the UPS LED depends if external power is connected or not..

External Power Present

LED Behavior	Status
Off	• No UPS charging, • UPS charged
Solid **Green**	UPS charging
Solid **Amber**	• Any charging fault, • Out of charging temperature range, • No UPS present, • Charge timeout

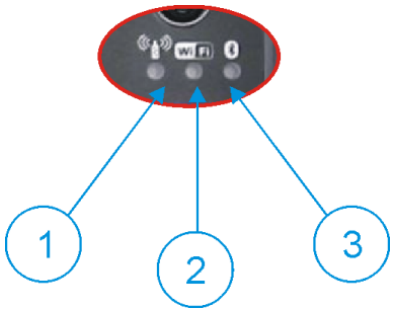
External Power Not Present

LED Behavior	Status
Off	• Unit off, • UPS not present
Solid **Amber**	UPS supplying power and discharging
Solid **Red**	Approximately 2 minutes runtime until shutdown

SSD (Solid State Drive) LED

LED Behavior	Status
Flashing **Green**	SSD read or write activity.
Off	No SSD read or write activity/

Connection LEDs



1. WWAN LED
2. WiFi LED
3. Bluetooth LED

WWAN LED

LED Behavior	Status
Solid **Green**	Indicates a WWAN connection to a network.
Off	Indicates no WWAN connection.

WiFi LED

LED Behavior	Status
Solid **Amber**	Indicates a connection with an IP address to an Access Point
Off	Indicates no connection to an Access Point.

Bluetooth LED

LED Behavior	Status
Blue Blinking Slowly	Bluetooth is paired but not connected to a device.
Blue Blinking Medium	Bluetooth is paired and connected to a device.
Blue Blinking Fast	Bluetooth is discovering Bluetooth devices.
Off	Bluetooth hardware has been turned off.

Keyboard LEDs

The keyboard LEDs are located near the specified key.

2nd LED

LED Behavior	Status
Solid **Green**	• Indicates the **2nd** modifier key is active. 2nd mode is invoked for the next keypress only. • Pressing the **2nd** key a second time exists this modifier mode and turns of the LED.
Off	2nd mode is not invoked.

Shift LEDs

For the 64 key keyboard, there is one LED next to each **Shift** key. Both LEDs indicate the status of Shift or Caps Lock mode.

For the 13 key keyboard, there is a single **Shift** key and a single LED.

LED Behavior	Status
Blinking **Green**	• Indicates the keypad is in Shift mode. Shift mode is invoked for one keypress. • Pressing the **Shift** key places the system in Shift mode. • To exit Shift mode, press the **Shift** key again.
Solid **Green**	• When solid **green**, indicates the keypad is in Caps Lock mode. Caps Lock mode is invoked until canceled. • Pressing the **2nd** key followed by the **Shift** key places the system in Caps Lock mode. • To exit Caps Lock mode, press **2nd** + **Shift** again.
Off	Neither Shift or Caps Lock mode is invoked.

Ctrl LED

The **Ctrl** key is not present on the 13 key keypad.

LED Behavior	Status
Solid **Green**	• Indicates the **Ctrl** modifier key is active. Ctrl mode is invoked for the next keypress only. • Pressing the **Crtrl** key a second time exists this modifier mode and turns of the LED.
Off	Ctrl mode is not invoked.

Alt LED

The **Alt** key is not present on the 13 key keypad.

LED Behavior	Status
Solid **Green**	• Indicates the **Alt** modifier key is active. Alt mode is invoked for the next keypress only. • Pressing the **A**lt key a second time exists this modifier mode and turns of the LED.
Off	Alt mode is not invoked.

Set Power Scheme Timers

Start | Settings | Control Panel | Power | Schemes

Change the parameter values and tap OK to save the changes.

Battery Power Scheme

Use this option to configure the Thor behavior when powered by the UPS battery.

Switch state to **User Idle**[1]	Default is After 3 seconds
Switch state to **System Idle**[2]	Default is After 15 seconds
Switch state to **Suspend**[3]	Default is After 5 minutes

AC Power Scheme

Use this option when the Thor will be running on external power (e.g. connected to).

Switch state to User Idle	Default is After 2 minutes
Switch state to System Idle	Default is After 2 minutes
Switch state to Suspend	Default is After 5 minutes

The timers are cumulative. The System Idle timer begins the countdown after the User Idle timer has expired and the Suspend timer begins the countdown after the System Idle timer has expired. When the User Idle timer is set to “Never”, the power scheme timers never place the Thor in User Idle, System Idle or Suspend modes (even when the Thor is idle).

[1] An amount of time has passed, set by the User Idle timer, and the device shuts down a minimum number of services e.g. backlights. The System Idle timer and the Suspend timer have not expired yet.
[2] An amount of time has passed, set by the System Idle timer, and the device shuts down a few more services e.g. display. The User Idle timer has expired and the Suspend timer has not expired yet.
[3] Suspend mode is entered when (1) the unit is inactive for a predetermined period of time, (2) the user taps the Power key, or (3) Start | Suspend is chosen. Inactivity means that internal devices that reset the power state are not active.

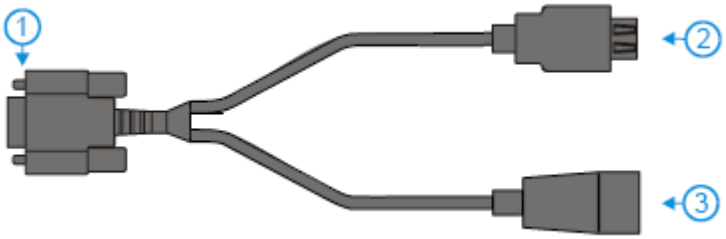
Connecting Cables to the Thor

Note: Do not connect or disconnect cables in a Hazardous location.

Connect Cable- USB Client

Prerequisite : A commercially available standard USB cable with a type A plug on one end and a type B plug on the other.

USB-C Cable Assembly

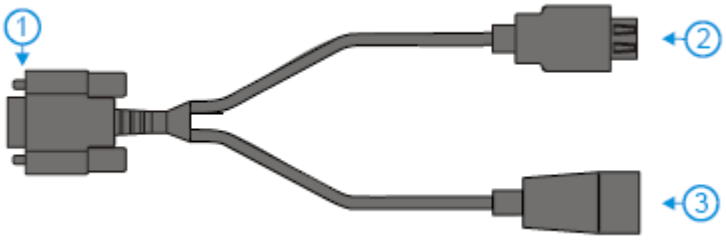


1. D9 Connector
2. USB Client Connector (for connecting to a USB host)
3. USB Host Connector (for connecting to a USB device)

1. Seat the cable end connector (connector 1) firmly over the USB Cable Connector on the Thor Quick Mount Smart Dock.
2. Tighten the thumbscrews in a clockwise direction. Do not over tighten.
3. Connector 2 on the cable provides a USB-Client connection. Connector 3 (USB-Host) is not used for the USB-C connection.

Connect Cable- USB Host

USB-H Cable Assembly

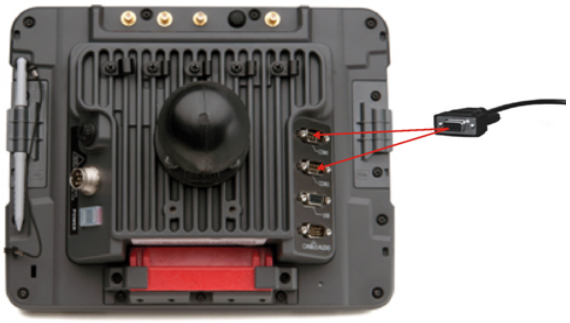


1. D9 Connector
2. USB Client Connector (for connecting to a USB host)
3. USB Host Connector (for connecting to a USB device)

1. Seat the cable end connector (connector 1) firmly over the USB Cable Connector on the Thor Quick Mount Smart Dock.
2. Tighten the thumbscrews in a clockwise direction. Do not over tighten.
3. Connector 3 on the cable provides a USB-Host connection. Connector 2 (USB-Client) is not used for the USB-H connection.

Connect Cable - Serial

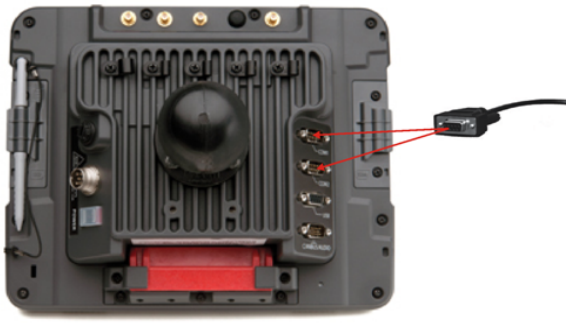
Prerequisite: Pin 9 of the desired COM port must be configured to provide +5V or RI as needed for the connected device.



1. Seat the cable end connector firmly over the serial COM port on the Thor Quick Mount Smart Dock.
2. Turn the thumbscrews in a clockwise direction. Do not over tighten.
3. Connect the other cable end to the desired serial device.

Connecting a Tethered Scanner

Prerequisite: Pin 9 of the desired COM port must be configured to provide +5V.



The scanner cable is attached to either the COM1 or COM2 port on the Thor Quick Mount Smart Dock.

1. Power off the Thor before connecting the scanner cable to the Thor.
2. Seat the connector firmly over the pins and turn the thumbscrews in a clockwise direction. Do not over over tighten.
3. Use a strain relief clamp to secure the cable.

Press the power button to power up the Thor and the tethered scanner.

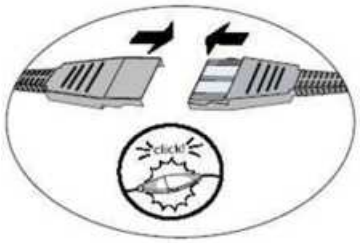
Connecting the Headset Cable

Headset

1. Connects to end of audio cable
2. Headphones
3. Microphone

Thor Audio Cable

1. Seat the D15 cable end connector firmly over the CANbus/Audio Connector on the Thor Quick Mount Smart Dock.
2. Tighten the thumbscrews in a clockwise direction. Do not over tighten.



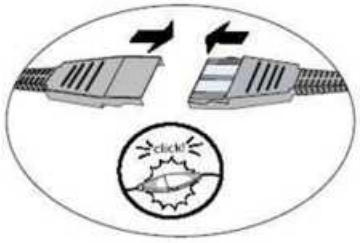
3. Slide the cable ends together until they click shut. Do not twist or bend the connectors. The Thor internal microphone and speakers are automatically disabled when the headset is connected.

The Thor is ready for voice-enabled applications.

Adjust Headset / Microphone and Secure Cable

The headset consists of an earpiece, a microphone, a clothing clip and a cable. The headset attaches to the audio cable end of the voice cable which attaches to the Thor.

Align the audio connector and the headset quick connect cable end. Firmly push the cable ends together until they click and lock in place.



Do not twist the microphone boom when adjusting the microphone. The microphone should be adjusted to be about two finger widths from your mouth.

Make sure the microphone is pointed at your mouth. Note the small “Talk” label near the mouthpiece. Make sure the Talk label is in front of your mouth. The microphone cable can be routed over or under clothing.

Under Clothing

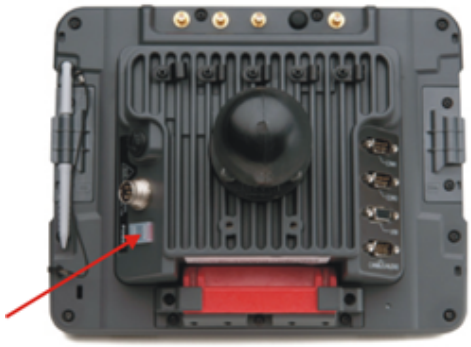
- Leave the cable exposed only at the top of the collar.
- Be sure to leave a small loop of cable to allow movement of your head.

Over Clothing

- Use clothing clips to hold the cable close to your body.
- Tuck the cable under the belt, but leave a small loop where it goes under the belt.
- Do not wear the cable on the front of your body. It may get in your way or get caught on protruding objects.

How To: Power Up the Thor

The Thor Quick Mount Smart Dock has a power switch on the back.



The "On" side of this rocker switch has a raised bump to allow the state of the switch to be determined when the switch may not be easily viewed, for example, after the Dock is mounted in a vehicle.

After external power has been connected and the Thor has been mounted in the Dock, press the side of the power switch with the raised bump to pass power from the Dock to the Thor. Generally, once the Dock is powered On, there is no need to power if Off.

Next locate the power button on the front of the Thor.

Press the power button to turn the Thor. When the Windows CE desktop is displayed or an application begins, the power up sequence is complete.

Connecting an AC/DC Power Supply

Note: The LXE-approved AC Power Supply and Adapter Cable are only intended for use in a 25°C (77°F) maximum ambient temperature environment.

1. AC Input Cable (US only)
2. DC Output Cable
3. To DC Output Cable (see above)
4. To Thor

In North America, this unit is intended for use with a UL Listed ITE power supply with output rated 12 – 80 VDC, minimum 15W75W . Outside North America, this unit is intended for use with an IEC certified ITE power supply with output rated 12 – 80 VDC, minimum 15W75W .

The external power supply may be connected to either a 120V, 60Hz supply or, outside North America, to a 230V, 50Hz supply, using the appropriate detachable cordset. In all cases, connect to a properly grounded source of supply provided with maximum 15 Amp overcurrent protection (10 Amp for 230V circuits).

1. Turn the Thor off.
2. Connect the detachable cordset provided by LXE (US only, all others must provide their own cable) to the external power supply (IEC 320 connector).
3. Plug cordset into appropriate, grounded, electrical supply receptacle (AC mains).
4. Connect the DC Output Cable end to the power connector on the Thor Quick Mount.
5. Turn the Thor on.

Connecting Vehicle Power

Complete vehicle cradle mounting and power instruction is contained in the *Thor CE Vehicle Mounting Reference Guide*.

Vehicle 12-48 VDC Power Connection

Caution:	For installation by trained service personnel only.
Caution:	For proper and safe installation, the input power cable must be connected to a fused circuit on the vehicle. This fused circuit requires a 10 Amp maximum time delay (slow blow) high interrupting rating fuse. If the supply connection is made directly to the battery, the fuse should be installed in the positive lead within 5 inches of the battery positive (+) terminal. Note: For North America, a UL Listed fuse is to be used.

VM1055CABLE

Wire Color	Connection
Red	DC + (12-48 VDC nominal)
Black	DC -
Green	Ground
Blue	Ignition Input (optional)

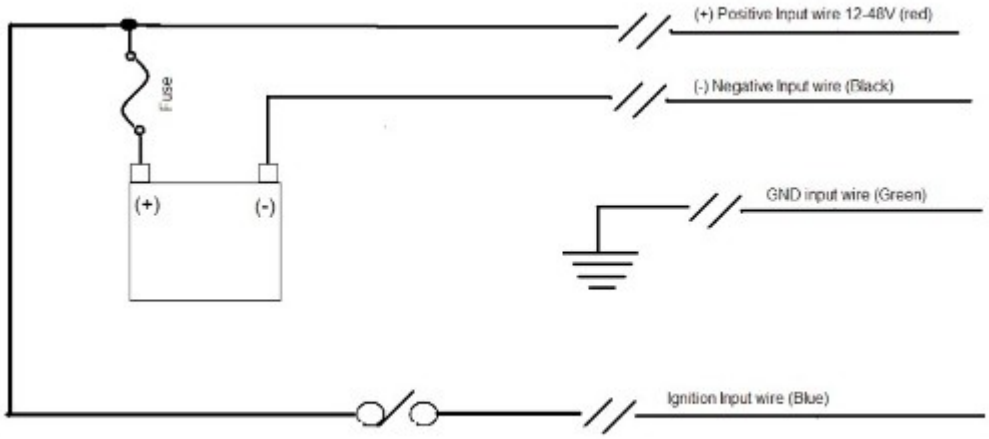
Note: Correct electrical polarity is required for safe and proper installation. See the figures below for additional wire color-coding specifics.

How To: Connect Vehicle 12-48VDC

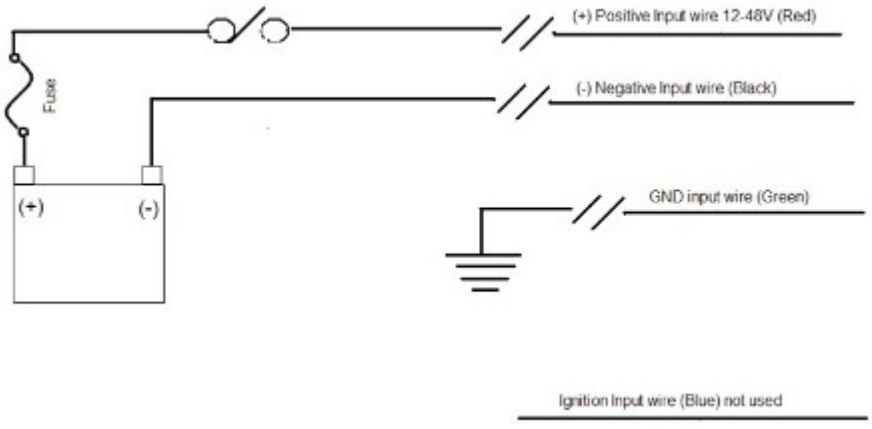
1. The Thor must not be mounted in the Quick Mount Smart Dock. The power switch on the Dock must be turned **Off**. The power cable must be UNPLUGGED from the Dock.

2. While observing the fuse requirements specified above, connect the power cable as close as possible to the actual battery terminals of the vehicle (if using unswitched power).
3. Wiring installation:

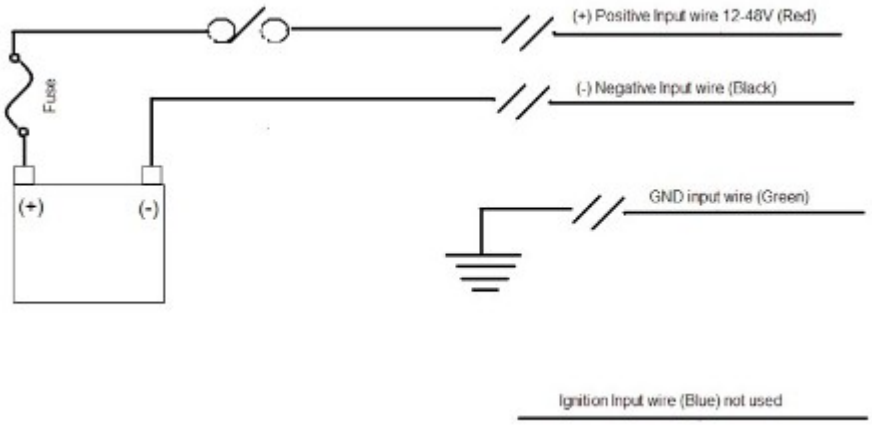
- Once installation is complete, remember to start the Thor and configure the Auto-On behavior. Please see the *Thor CE Reference Guide* for details: **Start | Settings | Control Panel | Options | Misc** tab.
- Use proper electrical and mechanical fastening means for terminating the cable. Properly sized “crimp” type electrical terminals are an accepted method of termination. Please select electrical connectors sized for use with 20AWG (0.81mm2) conductors.
- **Ignition Controlled** - Ignition wire must be connected and the Auto-On Feature disabled. When switched vehicle power is available the ignition wire can be connected (less than 1mA over input voltage range) to it to allow the Thor to power on when the vehicle is switched on and go into suspend when the vehicle is switched off.



- **Auto-On Controlled** - The vehicle supply connections should be made to vehicle switched power to allow the terminal to automatically power-up when vehicle power is switched on or when the power switch on the back of the Dock is placed in the On position. The Ignition wire is not used and should be left disconnected.



- **Manually Controlled** - Ignition wire must be left unconnected and the Auto-On Feature disabled.



4. Route the power cable:
   - Route the power cable the shortest way possible removing any left-over cable
   - The cable is rated for a maximum temperature of 105°C (221°F). Therefore, routing this cable it should be protected from physical damage and from surfaces that might exceed this temperature.
   - Cable should be protected from physical damage from moving parts
   - Do not expose the cable to chemicals or oil that may cause the wiring insulation to deteriorate
   - Always route the cable so that it does not interfere with safe operation and maintenance of the vehicle.
   - Provide mechanical support for the cable by securing it to the vehicle structure at approximately one foot intervals, taking care not to over tighten and pinch conductors or penetrate outer cable jacket.
5. Connect the DC power cable to the input connector on the back of the Dock.
6. Flip the power switch on the back of the Dock to On.
7. The Thor can be installed in the Dock.

VX6 / VX7 Adapter Cable

An adapter cable is available to attach the Thor to a vehicle previously equipped with a VX6/VX7 DC power cable. The adapter cable has a connector to match with the VX6/VX7 power supply cable on one end and a connector to match to the Thor on the other.

Caution	Because the Thor supports 12-48 VDC nominal power input, verify input voltages before using this adapter cable with an existing VX6 or VX7 power connection installation.

When this adapter cable is used, there is no provision for an ignition switch input. Therefore the vehicle ignition function is not available when using this cable.

Vehicle 72-144 VDC Power Connection

This option requires DC/DC external power supply LXE Part no. VX89303PWRSPLY.

Caution:	For installation by trained service personnel only.

Caution:	For proper and safe installation, the input power cable must be connected to a fused circuit on the vehicle. This fused circuit requires a 10 Amp maximum time delay (slow blow) high interrupting rating fuse. If the supply connection is made directly to the battery, the fuse should be installed in the positive lead within 5 inches of the battery positive (+) terminal. Note: For North America, a UL Listed fuse is to be used.

VM1055CABLE

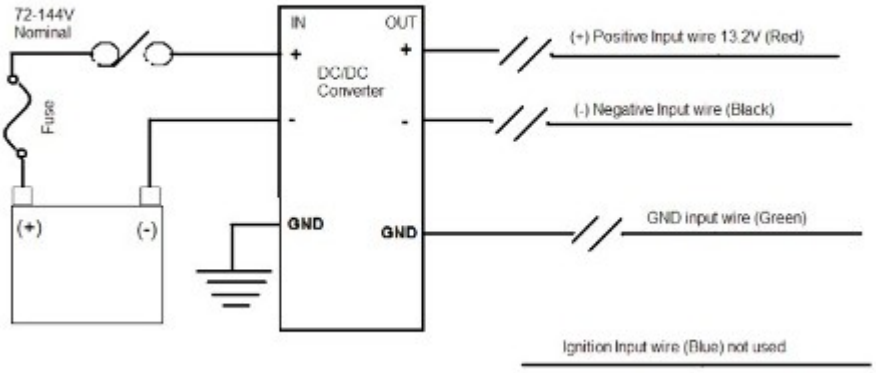
Wire Color	Connection
Red	DC + output from DC/DC Power Supply
Black	DC - output from DC/DC Power Supply
Green	Ground output from DC/DC Power Supply
Blue	Ignition Input (not connected)

Note: Correct electrical polarity is required for safe and proper installation. See the figures below for additional wire color-coding specifics.

How To: Connect Vehicle 72-144VDC

1. The Thor must not be mounted in the Quick Mount Smart Dock. The power switch on the Dock must be turned **Off**. The power cable must be UNPLUGGED from the Dock.
2. While observing the fuse requirements specified above, connect the power cable as close as possible to the actual battery terminals of the vehicle.
3. Wiring installation:

- The user must supply wiring from the vehicle to the DC/DC power supply.
- Once installation is complete, remember to start the Thor and configure the Auto-On behavior. Please see the *Thor CE Reference Guide* for details: **Start | Settings | Control Panel | Options | Misc** tab.
- Use proper electrical and mechanical fastening means for terminating the cable. Properly sized “crimp” type electrical terminals are an accepted method of termination. Please select electrical connectors sized for use with 20AWG (0.81mm2) conductors.
- Remove the lid from the DC to DC converter. Attach the stripped wire ends to the output side of the DC to DC converter. Attach stripped wire ends to the input side of the DC to DC converter.
- The input and output blocks each have two + and two – minus connectors. Either connector in the block can be used to connect the matching polarity wire.
- Use the looms and wire ties to secure all wiring then reattach the cover with the screws.
- Connect as detailed below:



4. Route the power cable:
   - Route the power cable the shortest way possible removing any left-over cable
   - The cable is rated for a maximum temperature of 105°C (221°F). Therefore, routing this cable it should be protected from physical damage and from surfaces that might exceed this temperature.
   - Cable should be protected from physical damage from moving parts
   - Do not expose the cable to chemicals or oil that may cause the wiring insulation to deteriorate
   - Always route the cable so that it does not interfere with safe operation and maintenance of the vehicle.
   - Provide mechanical support for the cable by securing it to the vehicle structure at approximately one foot intervals, taking care not to over tighten and pinch conductors or penetrate outer cable jacket.
5. Connect the DC power cable to the input connector on the back of the Dock.
6. Flip the power switch on the back of the Dock to On.
7. The Thor can be installed in the Dock.

Adjust Speaker Volume

The Thor has two speakers, located on the bottom of the unit.

Speaker volume can be adjusted to a comfortable level for the listener by using the keypad or by changing parameters in the Volume & Sounds control panel.

Using the Keypad

Note: Volume & Sounds (in Settings | Control Panel) must be enabled before the following key sequences can adjust the volume.

The volume is increased or decreased one step each time the volume key sequence is pressed.

To adjust speaker volume, locate the **2nd** key to the left of the display. Press this key.

Adjust the speaker volume by pressing the:

Use the **F9** key for volume Up and **F10** key for volume Down. Adjust volume until the speaker volume is satisfactory. Press the **Enter** key to exit this mode.

The LED for the 2nd key blinks until the special editing mode (set audio speaker volume) is complete.

Volume control using a keypad key press has six volume settings that match those supported by the Volume and Sounds Control panel. Volume does not “roll-over” from minimum to maximum or from maximum to minimum. Continuously holding down the up or down arrow keys does not cause an automatic repeat of the up (or down) arrow key.

Using the Control Panel

Start | Settings | Control Panel | Volume & Sounds | Volume

Change the volume setting and tap OK to save the change.

You can also select / deselect sounds for key clicks and screen taps and whether each is loud or soft.

As the volume scrollbar is moved between Loud and Soft, the Thor emits a tone each time the volume increases or decreases in decibel range.

Set Date and Time Zone

Tap **Start | Settings | Control Panel | Date/Time** icon or tap the Date/Time in the taskbar.

Set Date, Time, Time Zone, and assign a Daylight Savings location on the Thor after a warm boot or anytime.

There is very little functional change from standard desktop PC Date/Time Properties options. Adjust the settings and tap the OK button or the Apply button to save changes to the registry. Any changes take effect immediately.

Double-tapping the time displayed in the Taskbar causes the Date/Time Properties screen to appear.

Grab Time Utility

The GrabTime utility can be configured to synchronize the time with a local server during each reboot function.

Tap the Sync button to synchronize date and time with a networked time server. By default, the Thor operating system first searches for a time server on the local intranet. If not found, it then searches the Internet for a time server. A connection to the Internet is required for this option.

Autolaunch Time-Sync

Start | Settings | Control Panel | Thor Options | Communication tab

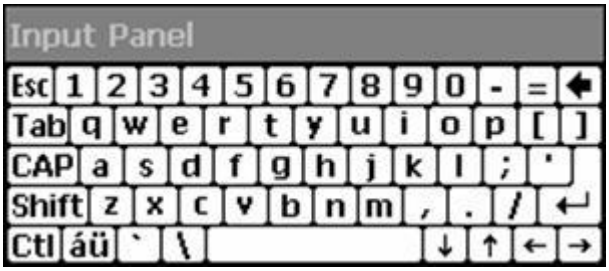
By default, TimeSync does not automatically run on the Thor. To enable TimeSync to run automatically on the Thor using the GrabTime utility, check this checkbox.

Synchronize with a Local Time Server

By default, GrabTime synchronizes via an Internet connection. To synchronize with a local time server:

1. Use ActiveSync to copy GrabTime.ini from the My Device | Windows folder on the Thor to the host PC.
2. Edit the copy of GrabTime.ini on the host PC. Add the local time server's domain name to the beginning of the list of servers. You can optionally delete the remainder of the list.
3. Copy the modified GrabTime.ini file to the My Device | System folder on the Thor. The System/GrabTime.ini file takes precedence over the Windows/GrabTime.ini file. System/Grabtime.ini also persists after a coldboot; Windows/Grabtime.ini does not persist.

Using the Input Panel / Virtual Keyboard



The virtual keyboard is always available when needed e.g. text entry.

Place the cursor in the text entry field and, using the stylus:

- Tap the Shift key to type one capital letter.
- Tap the CAPS key to type all capital letters.
- Tap the áü key to access symbols.

Some applications do not automatically display the Input Panel. In this case, do the following to use the Input Panel:

Input Panel icon in the taskbar

Keyboard icon in the taskbar

- Tap the Input Panel or Keyboard icon in the taskbar.
- Select **Keyboard** from the menu.
- Move the cursor into the text entry field when you want to enter data using the Input Panel.

When finished entering data, tap the icon in the Taskbar again.Select **Hide Input Panel**.

Touchscreen

Calibrating the Touchscreen

If the touchscreen is not responding properly to stylus taps, you may need to recalibrate the touchscreen.

Recalibration involves tapping the center of a target. If you miss the center, keep the stylus on the screen, slide it over the target's center, and then lift the stylus.

To recalibrate the screen, select **Start | Settings | Control Panel | Stylus | Calibration** tab.

Follow the instructions on the screen and press the Enter key to save the new calibration settings or press Esc to cancel or quit.

Apply the Touchscreen Protective Film

First, clean the touchscreen of fingerprints, lint particles, dust and smudges.

Remove the protective film from its container. Remove any protective backing from the film sheet by lifting the backing from a corner of the film. Discard the backing.

1. Make sure both the touchscreen and protective film are clean and dry before installation. Please review Cleaning the Display for instructions on suitable cleaning agents.
2. Center the protective film over the touchscreen. The antiglare side must be facing outward. Do not cut or trim the protective film.
3. The protective film is approximately 1/10” (2.54cm) larger than the touchscreen at the centers of the edges .
4. Slide the protective film so that one of the edges of the film can be slid between the touchscreen and display housing when the protective film is re-centered on the touchscreen. Repeat for the other three edges, ensuring the protective film is centered over the touchscreen when finished.
5. To remove the protective film, slide the protective film in one direction until the edge clears. Lift up on the edge of the film so it does not slide between the touchscreen and display housing when slid back. Repeat until all edges are free and remove the protective film.

Contact your LXE representative about protective film packs designed specifically for your Thor touchscreen.

Setup Terminal Emulation Parameters

Before you make a host connection, you will, at a minimum, need to know:

- the alias name or IP address (Host Address) and
- the port number (Telnet Port) of the host system to properly set up your host session.

1. Make sure the mobile client network settings are configured and functional. If you are connecting over wireless LAN (802.11*x*), make sure your mobile client is communicating with the Access Point.
2. From **Start | Program**, run **LXE RFTerm** or tap the RFTerm icon on the desktop.
3. Select **Session | Configure** from the application menu and select the "host type" that you require. This will depend on the type of host system that you are going to connect to; i.e. 3270 mainframe, AS/400 5250 server or VT host.
4. Enter the "Host Address" of the host system that you wish to connect to. This may either be a **DNS name or an IP address of the host** system.
5. Update the **telnet port number**, if your host application is configured to listen on a specific port. If not, just use the default telnet port.
6. Select **OK.**
7. Select **Session | Connect** from the application menu or tap the "Connect" button on the Tool Bar. Upon a successful connection, you should see the host application screen displayed.

To change options such as Display, Colors, Cursor, Barcode, etc., please refer to these sections in the *RFTerm Reference Guide* for complete descriptions of these and other features.

Using the AppLock Switchpad

*Note: The touchscreen must be enabled. Select **Start** | **Settings** | **Control Panel** | **Options** | **Misc. tab** to verify touchscreen status.*

Switchpad Menu

Switchpad Icon in Taskbar

A checkmark indicates applications currently active or available for Launching by the Thor user. When Keyboard, on the Switchpad Menu, is selected, the default input method (Input Panel, Transcriber, or custom input method) is activated.

Using the Keypad

One switch key sequence (or hotkey) is defined by the Administrator for the end-user to use when switching between locked applications. This is known as the **Activation key**.

When the switch key sequence is pressed on the keypad, the next application in the AppLock configuration is moved to the foreground and the previous application moves to the background. The previous application continues to run in the background. Thor key presses affect the application in focus only.

Using the Touchscreen

The figure shown above is an example and is shown only to aid in describing how the user can switch between applications using a stylus.

When the user taps the Switchpad icon with the stylus, a menu pops up listing the applications available to the user. The user can tap an application name in the popup menu and the selected application is brought to the foreground. The previous application continues to run in the background. Stylus taps affect the application in focus only. When the user needs to use the Input Panel, they tap the Keyboard option. Input Panel taps affect the application in focus only.

Reboot

When the Windows CE desktop is displayed or an application begins, the power up (or reboot) sequence is complete.

Warmboot

A warmboot reboots the computer without erasing any registry data. Configuration settings and data in RAM are preserved during a warmboot. Network and ActiveSync sessions are lost and any data in running applications that had not been previously saved may be lost. CAB files already installed remain installed.

There are several methods available:

- Using the Registry, select **Start | Settings | Control Panel | Registry** and tap the **Warmboot** button. The Thor immediately warmboots.
- Using the Start menu, select Start | Run and type WARMBOOT in the text box. Press Enter. The Thor immediately warmboots. The WARMBOOT text command is not case-sensitive.
- Using the keypad, press the Ctl key and release it, press the Alt key and release it, press the Del key and release it. The Thor immediately warmboots.

Restart

A restart reboots the computer without erasing any registry data. Configuration settings are preserved during a restart. The contents of RAM are erased. Network and ActiveSync sessions are lost and any data in running applications that had not been previously saved may be lost. The OS and CAB files are reloaded.

To restart, select **Start | Settings | Control Panel | Registry** and tap the **Restart** button.

Troubleshooting

Thor seems to lockup as soon as it is rebooted.	There may be slight delays while the wireless client connects to the network, authorization for voice-enabled applications complete, and Bluetooth relationships establish or re-establish. When an application begins, the Thor is ready for use.

Class A Digital Device

NOTICE

This device complies with FCC Rules, part 15. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTICE

Changes or modifications made to this equipment not expressly approved by LXE, Inc., may void the FCC authorization to operate this equipment.

Industry Canada

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe A prescrites dans le Réglement sur le brouillage radioélectrique édits par le ministère des Communications du Canada.

EMC Directive Requirements:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Lithium Ion Battery

When disposing of the main battery, the following precautions should be observed: The battery should be disposed of properly. The battery should not be disassembled or crushed. The battery should not be heated above 212°F (100°C) or incinerated.

Waste Electrical and Electronic Equipment (WEEE)

Important:
This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEE) appropriately, per Directive 2002-96-EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash. For information about proper disposal, Contact your LXE representative, or visit www lxe com.

R&TTE Directive Requirements (Applies only to equipment operated within the EU/EFTA)

Information to User

A label on the exterior of the device should resemble one of the labels shown below (the label contains the LXE part number of the installed radio card). The labels shown below and affixed to the device, identify where the device may be used and where its use is restricted. Use of a device is prohibited in countries not listed below or otherwise identified by the label. (May or may not include the 0560 Notified Body Number. Substitute 4 digit Notified Body Number may also be applied.)

RF Safety Notice

This device is intended to transmit RF energy. For protection against RF exposure to humans and in accordance with FCC rules and Industry Canada rules, this transmitter should be installed such that a minimum separation distance of at least 20 cm (7.8 in.) is maintained between the antenna and the general population. This device is not to be co-located with other transmitters.

Lithium Battery Safety Statement

Caution: Lithium battery inside. Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by battery manufacturer. (US)

Attention: Contient une pile de lithium. Risque d'explosion dans le cas où la pile ne serait pas correctement remplacée. Remplacer uniquement avec une pile semblable ou equivalente au type de pile recommandé par le fabricant. (FR)

Forsigtig: Indeholder lithiumbattterier. Risiko for eksplosion, hvis batteriet udskiftes forkert. Må kun udskiftes med samme eller tilsvarende type, som anbefalet af fabikanten. (DK)

Varoitus: Tämä tuote käyttää laservaloa. Skannerissa on jokin seuraavista tarroista. Lue Huomio-kohta. (FI)

Vorsicht: Enthält Lithium-Batterie. Bei unsachgemäßem Ersatz besteht Explosionsgefahr. Nur durch gleichen oder vom Hersteller empfohlenen Typ ersetzen. (DE)

Attenzione: Batteria al litio. Pericolo di esplosione qualora la batteria venga sostituita in maniera scorretta. Sostituire solo con lo stesso tipo o equivalente consigliato per il fabbricante. (IT)

Atenção: Contém pilha de lítio. Há perigo de explosão no caso de uma substituição incorreta. Substitua somente pelo mesmo tipo, ou equivalente, recomendado pelo fabricante.

(PT) Varning: Innehåller litiumbatteri. Fara för explosion om batteriet är felaktigt placerat eller av fel typ. Använd endast samma eller motsvarande typ batterier rekommenderade av tillverkaren. (SE)

Advarsel: Innmontert Lithium batteri. Eksplosjonsfare ved feil montering av batteri. Benytt kun batteri anbefalt av produsent. (NO)

Cuidado: Pila de litio adentro. Peligro de explosión si la pila se reemplaza incorrectamente. Reemplace solamente con el mismo tipo o equivalente recomendado por el fabricante. (ES)

Oppassen: Bevat Lithium-batterij. Incorrrecte plaatsing van batterij kan leiden tot explosiegevaar. Alleen vervangen door hetzelfde of door fabrikant aanbevolen gelijkwaardig type. (NL)

Legend: Danish – DK; English – US; Finnish – FI; French- - FR; German – DE; Greek – GR; Italian – IT; Norwegian – NO; Portuguese – PT; Spanish – ES; Swedish – SE; Turkish – TR.

Vehicle Power Supply Connection Safety Statement

Vehicle Power Supply Connection: If the supply connection is made directly to the battery, a 10A slow-blow fuse should be installed in the positive lead within 5 inches (12.7 cm.) of the battery positive (+) terminal. (US)

Raccordement de l'alimentation du véhicule Si l'alimentation est raccordée directement à la batterie, un fusible à action retardée de 10A doit être installé sur le câble positif à moins de 12,7 cm de la borne positive (+) de la batterie. (FR)

EL forsyning af køretøjet. Er forsyningsforbindelsen direkte tilknyttet til batteriet og og tilsluttet til den positive part indenfor 12,7 cm (+ delen). vil der være en langsom tændelse af 10 ampere. (DK)

Kytkentä ajoneuvon virtalähteeseen Jos virtaa otetaan suoraan akusta, 10 ampeerin hidas sulake on asennettava positiiviseen johtoon enintään 12 cm:n etäisyydelle akun positiivisesta (+) navasta. (FI)

Anschluss an Fahrzeugbatterie Bei direktem Anschluss an die Fahrzeugbatterie sollte eine träge 10A-Sicherung in die positive Leitung zwischengeschaltet werden, und zwar nicht weiter als ca. 13 cm von der positiven (+) Batterieklemme entfernt. (DE)

Σύνδεση Τροφοδοτικού Ισχύος Οχήματος Αν η σύνδεση του τροφοδοτικού γίνει κατευθείαν στη μπαταρία, μια ασφάλεια βραδείας τήξης των 10A θα πρέπει να τοποθετηθεί στο θετικό καλώδιο εντός 5 ιντσών (12,7 εκ.) του θετικού (+) ακροδέκτη της μπαταρίας. (GR)

Collegamento dell'alimentazione del veicolo Se il collegamento dell'alimentazione viene stabilito direttamente con la batteria, è necessario installare un fusibile ad azione lenta da 10A nel conduttore positivo a meno di 5 in. (12,7 cm) dal terminale positivo (+) della batteria. (IT)

Tilkople strømforsyningen til kjøretøyet Hvis strømforsyningen koples direkte til batteriet, skal det installeres en 10A treg sikring i den positive ledningen innen 12,7 cm fra plusspolen (+) på batteriet. (NO)

Ligação do fornecimento de corrente do veículo Se a ligação de fornecimento de corrente for ligada directamente à bateria, deve instalar-se um fusível de 10A no terminal positivo, a 12,7 cm. do terminal positivo (+) da bateria. (PT)

Conexión de suministro eléctrico para el vehículo Si el suministro eléctrico se proporciona directamente a la batería, se debe instalar un fusible de retardo de 10A en el conductor positivo, como máximo a 12,7 cm (5 pulgadas) del terminal positivo (+). (ES)

Fordonets strömförsörjningskoppling Om strömkopplingen görs direkt till batteriet, måste en 10A-säkring installeras i den positivt laddade ledningen inom 12.7 cm från batteriets pluspol (+). (SE)

Taşıt Güç Kaynağı Bağlantısı Kaynak bağlantısı doğrudan aküye yapılırsa, pozitif bağlantı kablosu üzerinde akünün pozitif (+) kutbuna 12.7 cm mesafede 10A'lık yavaş atan bir sigorta monte edilmelidir. (TR)

Legend: Danish – DK; English – US; Finnish – FI; French- - FR; German – DE; Greek – GR; Italian – IT; Norwegian – NO; Portuguese – PT; Spanish – ES; Swedish – SE; Turkish – TR.

Revision History

Revision / Date	Location / Change
A / May - June 2011	Initial Release

Index

A

AC Power Scheme ... 12
Adjust Headset / Microphone and Secure Cable ... 16
Adjust Speaker Volume ... 23
AppLock Switchpad ... 28
Apply the Touchscreen Protective Film ... 27
Autolaunch Time-Sync ... 25

B

Battery Power Scheme ... 12

C

Calibrate ... 27
Class A Digital Device ... 30
Connect Cable- USB Client ... 13
Connect Cable- USB Host ... 13
Connect Cable - Seria ... 14
Connecting a Tethered Scanner ... 14
Connecting Cables ... 13
Connecting the Headset Cable ... 15
Connecting Vehicle Power ... 19
Cumulative mode timers ... 12

D

Date, Time, TimeZone ... 25
Daylight Savings location ... 25
Display Backlight ... 7

G

Grab Time Utility ... 25

H

Hardware Setup ... 1
Headset
  Adjusting the microphone ... 16
  Mouthpiece Talk label ... 16
  quick connect cable ... 16
Hide input panel ... 26
Hide online keyboard ... 26
How To
  Connect 12-80VDC Vehicle Power ... 19, 22

I

Input Cable, Max Temp rating ... 21, 23
Input panel ... 26

K

Keypad Backlight ... 7

L

LED Functions ... 8

P

Polarity ... 19, 22
power button ... 17
Power key ... 1
power switch ... 17
Protective film for touchscreen ... 27

R

Recalibrate ... 27
Revision History ... 33
RF Safety Notice ... 31

S

Safety Statement
  Vehicle Power Supply ... 33
Set Date and Time Zone ... 25
Set Power Scheme Timers ... 12
Set Up A New Device ... 1
Setup Terminal Emulation Parameters ... 27
SIP soft input panel ... 26

Software Setup 1
Stylus
how to use 6
Switchpad 28
Synchronize with a Local Time Server 25

T

Touchscreen
and the stylus 6
Touchscreen protective film 27
Troubleshooting 29

U

Using the AppLock Switchpad 28

V

Vehicle 12-48VDC Power Connection 19
Vehicle 72-144VDC Power Connection 21
virtual keyboard 26
Volume adjust 23

W

WEEE 30